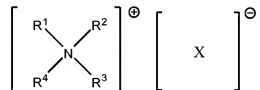


AMENDMENTS TO THE SPECIFICATION

Please replace the two paragraphs beginning on page 2, line 16 and ending on page 4, line 5 with the following two paragraphs.

The quaternary ammonium alkyl salts have the following general formula:



wherein X is an ~~alkane~~alkyl carboxylate ~~[[-]O-C(O)R~~, alkyl sulfate ~~[[-]OS(O)₂OR~~, ~~alkanesulfonate~~alkyl sulphonate ~~OS(O)₂R-S(O)₂OR~~, alkyl phosphate ~~OP(O)(OH)OR-~~
~~OP(O)OHOR~~, ~~(O-)~~ alkyl phosphonate~~alkyl phosphite~~ ~~OP(O)(H)-OR-OP(O)H-OR~~; R is an alkyl group having from 8 to 22 carbon atoms, and R¹ is a long chain alkyl group or a benzyl group and,

where the R¹ group is a long chain alkyl group, R² and R³ are short chain alkyl groups and R⁴ is a short or long chain alkyl group and,

where R¹ is a benzyl group, R² is a short chain alkyl group and R³ and R⁴ are each either short or long chain alkyl groups. The aforesaid long chain alkyl groups have from 8 to 22 carbon atoms, preferably from 10 to 18, and the short chain ally groups have from 1 to 4 carbon atoms, preferably 1 or 2.

Examples of the quaternary ammonium cation in the quaternary ammonium alkyl salts include, but are not limited to, alkyldimethylbenzyl[[]]ammonium in which the alkyl group contains 1-25 carbon atoms, didecyldimethyl[[]]ammonium, alkyl[[]]trimethyl[[]]ammonium, octyldodecyldimethyl[[]]ammonium, dioctyldimethyl[[]]ammonium, didecylmethylpropyl[[]]ammonium, didecylmethylbutyl[[]]ammonium, benzylhexadecyldimethyl[[]]ammonium, didecylmethyl-4-chlorobenzyl[[]]ammonium, didecylmethyl-3,4-dichlorobenzyl[[]]ammonium, decyloctyldimethyl[[]]ammonium, decyloctylbenzylmethyl[[]]ammonium, decyldodecyldimethyl[[]]ammonium, decyldodecylethylmethylammonium, dodecylbenzylmethyl[[]]ammonium, tetradecylbenzylmethyl[[]]ammonium, diundecyldimethyl[[]]ammonium, dinonylhydroxyethylmethyl[[]]ammonium, didecylhydroxypropylmethyl[[]]ammonium, and diundecyldihydroxyethyl[[]]ammonium, and combinations thereof. Blends of compounds containing dioctyl, didodecyl and decyloctyl compounds or didecyl, didodecyl and decyldodecyl compounds may also be used. These cations can be combined with any of the anions, that is, those represented by X in the above formula. Preferred quaternary ammonium alkyl salts are alkyldimethylbenzyl[[]]ammonium lauryl sulfate (Barquat LS) and didecyldimethyl[[]]ammonium lauryl sulfate (DDA-LS) and the corresponding alkyl carboxylate. The sulfonate, phosphate, and phosphite salts of the quaternary ammonium alkyl salts are also of interest. These are new compositions of matter.